

B. A. Madbury

Two—Three Dollars per annum, payable in advance.

THE
**SOUTHERN AGRICULTURIST,
HORTICULTURIST,
AND
REGISTER OF RURAL AFFAIRS,**

ADAPTED TO THE
SOUTHERN SECTION OF THE UNITED STATES.

NEW SERIES.—VOLUME III.—NUMBER II.

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CONTENTS.

| | PAGE. |
|---|-------|
| Proposed Agricultural Manual..... | 401 |
| Lectures on the Application of Chemistry and Geology to Agriculture. By James F. W. Johnston, M. A., F. R. S., &c..... | 405 |
| Dunn's Black Manual, and Phillips's Encyclo..... | 407 |
| Improvement of Corn, Wheat, &c..... | 409 |
| The Pollen of Corn-Soil..... | 410 |
| City Manures. By Wm. Pennington..... | 412 |
| Mixtures of Soils—Saving of Urine..... | 415 |
| Proper depth for Planting Seeds..... | 416 |
| Culture of Corn. By William Rutherford, Jr..... | 418 |
| Report of the Fishing Creek Agricultural Society. By L. A. Dickinson..... | 419 |
| Accidental Manuring. By L. A. Dickinson..... | 426 |
| Machine for Preparing Cotton for Market. By Robt. M. Livingston, with a Reply thereto. By Paul C. Grimball, Chairman of Committee, on Cotton, &c..... | 429 |
| Lice on Animals..... | 439 |
| Horse Bots, Cow Bots, and Sheep Bots..... | 437 |
| Centre-Draught Plough. By F. W..... | 438 |
| Agricultural Society of South-Carolina. Proceedings at the Cattle-Show and Fair..... | 439 |
| Capt. Geddes' Cotton and Corn..... | 437 |

MISCELLANEOUS.

| | |
|---|---------|
| The Fair of the N. Y. State Agricultural Society.—Prizes and Publications Outstanding Accrosses.—The Spider.—Annoying Effects of Guinea—Fattening of Hogs. | 436—439 |
| MONTHLY HORTICULTURAL CALENDAR. | 440 |

Terms of the Southern Agriculturist.

Three Dollars, payable in advance;—for two copies \$5; Societies and Clubs can be supplied with ten copies for \$20, payable in advance.

Black Oak Agricultural Society.

The following Resolutions are offered for publication, by direction of the Society, with a view of calling the attention of planters to the subject, and of inducing those who are conveniently located, to test the practicability of making Marl an article of domestic trade.

H. W. RAVENEL, Secretary & Treasurer.

Resolved, That the owners of Marl deposits within the limits of this Society, and contiguous to the water courses and Santa Canal, and public roads, be earnestly invited and requested to make experiments in the culture of the ensuing summer and autumn, when the diminished labor of the plantation will allow the necessary time and opportunity, as to the practicability and cost of preparing that manure for the supply of such remote locations as may require it, and to report the result thereof to this Society, at its meeting in November next, estimating, as accurately as may be, the cost of digging and depositing it upon the banks of the river or canal, and the cost of further transportation by boat or wagon, per mile.

Resolved, That a SILVER MEDAL be presented to the individual, whose experiment and estimate, shall in the judgment of the committee instituted to award premiums, best test the practicability of making Marl an article of internal domestic trade—such experiment and calculation to be presented in a written form.

THE SOUTHERN AGRICULTURIST.

(NEW SERIES.)

VOL. III.

FOR NOVEMBER, 1843.

No. XI.

For the Southern Agriculturist.

AN AGRICULTURAL MANUAL.

To the Editor of the Southern Agriculturist:—

THE obstacle which has hitherto impeded the progress of improvement, in the art of planting, is the idea that possesses the minds of those who call themselves practical planters, that planting is a thing to be learned only, by practice; that a man cannot read and learn how to plant, and other such like unfounded impressions.

It is true enough, that a man cannot, just now, learn much about the details of planting from the study of books, for no one, conversant with these matters, has considered it worth his while to furnish the young agriculturist with any such aid; though the deficiency must have been felt and lamented by every beginner. But when this difficulty has once been surmounted, and the agriculturist finds himself acquainted accurately with the most approved mode of conducting his affairs, what is the next step to be taken? or is there none? Is he to toil on, like the ox in his plough, through the same dull routine every day, and leave his mind to waste away for want of exercise, until its capacity comes to be contracted to the bounds of the narrow sphere, beyond which it never moves; or is there not a limitless field for the exercise of all the talents with which nature may have endowed him—a field in which he may win for himself as much of the regard of his fellow-men, as is ever accorded to the warrior or the statesman.

The impression which the young men of the present day have, somehow, received, that a planter can only acquire importance, and attract the notice of the world, by possessing himself of a seat in the Legislature, is totally false and irrational. The little impor-

tance which accrues to him, as a member of the Legislature, does not extend beyond the limits of his own district. For, unaccustomed as the planter commonly is, to the study of any science, you will find him most often ignorant of the first principles of government, and therefore unprepared to make himself known as a politician. But only let him effect an improvement, be it ever so trifling, in the art of planting, and in a little while he is known throughout the agricultural world, and he enjoys the pleasing reflection that he has in some respect, made himself useful, has done some good in his generation, and may not blush to commit his name to posterity.

The question which presents itself to our consideration is this: how may a planter, after acquiring such a knowledge of the art of planting, as will enable him to practice it with the ordinary chance of success, advance beyond the bounds of his present acquirements; and while, by placing new knowledge within their reach, he improves the condition of his class, at the same time win for himself a name among the ever illustrious promoters of science.

The prevailing opinion among our practical planters seems to be, that there is no other way of effecting improvements in their art, than by the diligent prosecution of experiments, and foreswearing every thing like the study of sciences, and searching out analogies of cases, that they may profit by the application of established principles. These men have adopted this strange notion, that it is impracticable to improve their art by drawing for aid upon the stores of science, from the occasional appearance of men, who are termed *theoretical planters*, and who are observed invariably to be unsuccessful in the practice of their art. But observation shows us, that their cases by no means disprove the proposition, that the study of the sciences will enable us to improve the practice of our art. The first glance at the theories of most of these men, will show us, that they are concocted without any regard to the truths of science, and many of the data which serve them as premises, are mere dogmatisms of a pompous empiricism. There is, I think, no excuse for this prejudice which possesses the minds of our planters, and places them, with regard to the scientific world, very much in the position of the Chinese, who are the fathers of that experimental art, to which they seem disposed to devote themselves.

Let us see with what success the Chinese have prosecuted their experiments without the aid of philosophy, and we may then be able to appreciate the worth of this experimental system, unaided by science. Hundreds of years since, the Chinese had by active experimenting, accomplished discoveries which excited the admiration and envy of the world, and which the rest of the world could not imitate; because they had been made at random, without any knowledge of scientific principles, and consequently the Chinese books furnish only recipes and directions for use, without explaining processes. But what is now the relative position of China to us, with respect to their excellence in the arts. No sooner was the powerful agency of chemistry summoned to our aid, than we began at once to gain upon these mere experimental artists, and in the course of half a century we have been able, not only to equal, but to surpass them in the arts. And this has been the case, because we have conducted our experiments upon scientific principles; so that they are merely practical demonstrations of well founded, and carefully conducted theories.

But though this is the case with all the arts, to the improvement of which, science has lent her aid; in the agricultural art, all Europe, as well as ourselves, must still yield the precedence to China. And if you examine into the matter you will find that this is clearly because science has been debarred from all participation in the work of improvement. This we think is as unreasonable, as it is plainly to be perceived. It is an evil which requires correction, and the practicability no one can dispute, any more than the necessity of the work of reformation.

If this is to be accomplished, chemistry and geology should, more or less, occupy the attention of every planter; for you will find, that whoever reasons upon subjects connected with agriculture, must have recourse perpetually to these sciences. And when, as most frequently occurs with the planter, previous education has not fitted one for mastering these sciences in all their branches, there are, within the reach of every one, certain recent publications treating of such principles as are applicable to agriculture and vegetable physiology, which will fully compensate for any time and trouble expended in their perusal; such are "Productive Farming," by Joseph A. Smith, and Liebig's "Report on Agricultural Chemistry," edited by Professor Webster.

By the study of these, and such other works, the planter will furnish himself with many well authenticated data, from which he may draw such inferences as his own ingenuity may suggest, while, at the same time, he possesses himself of such a knowledge of general principles as will enable him to test the practicability of his theories, without waiting for the results of tedious, and in many cases costly experiments.

The chief object in the way of effecting such a change as the one we propose, is this. The young planter finds in the outset of his career, that in order to learn how to conduct the every day business of his plantation, it becomes necessary to abandon altogether the reading of books, and set about acquiring all the knowledge that he can, through his own personal observation. This of course keeps him in motion in the field all the day, which puts him to bed with the fowls, and infallibly breaks through all habit of study. And this habit being lost in the outset, by the time he has acquired a competent knowledge of the details of his business, he is hardly susceptible of being improved by works of science. Yet these are the men upon whom it devolves to effect the revolution we propose; that is, to make the planter a man capable, not only of practising his art, according to the most approved method, but also, able to study the sciences which treat of that art, and to reap for himself and the world, such advantages as may arise from his labors. And from the vast amount of intelligence, which at present resides in the class of which we are speaking, it is to be argued, that the result of its proper application must be immense. I would suggest, that the way in which planters may accomplish this desirable end, is by compiling and throwing into a tangible form, all such information relative to the business of a planter, as may serve to furnish the beginner with a competent knowledge of the details of planting. This "Vade-Mecum" of the planter, should instruct him as to the proportions of banks, margins, ditches, drains, beds, &c.; the most approved method or methods, (for with regard to many of these points, there is much difference of opinion among planters,) of ditching, banking, ploughing, digging, mashing, listing, trenching, cutting drains, dividing fields, management of the growing crop in its various stages, harvesting, stacking, threshing, &c. To such a work might be appended, a dissertation upon the

most popular method of managing negroes, and some account of the various contrivances for stealing and evading plantation laws, which are current among the negroes, according to the experience of the older planters. A manual of this sort would be invaluable to a young man about to take charge of his business; for, provided as he would be, in this way, with the experience of his predecessors, he would certainly be much sooner fitted for the management of his concerns, and having kept up in some measure, the habit of study, he would be more apt to devote himself to the work of improvement, which we are proposing. And when there are men who will do this, agriculture will advance with the other arts in their rapid progress of improvement; and those who are engaged in its pursuit, will occupy a higher position in society; for then, at the same time that he is adopting the most effectual means of adding to his wealth, the planter may, in common with all men engaged in scientific pursuits, earn for himself any degree of fame to which his ambition may aspire.

Now, Mr. Editor, I would suggest, that an agricultural society could not confer upon the community more permanent general advantages, than would result from the preparation of a *manual*, according to the plan above described, by a committee appointed from among the number of their most experienced members, which work should be published at the cost of the society.

ACTUOSUS ET SCIENTIAM FERENS.

LECTURES ON THE APPLICATION OF CHEMISTRY AND
GEOLOGY TO AGRICULTURE.

BY JAS. F. W. JOHNSTON, M. A., F. R. S., ETC.

Mr. D. K. Minor, 23 Chambers street, New York, has forwarded us *part 3* of the above work, which is now in a course of publication by him. We have read this *part* of the work with a pleasure so great as to make us regret that our good friend had not been equally thoughtful of us when he issued the *first and second parts*. The work is comprised of a series of lectures; those in the part before us are from No. 14 to No. 18 both included, and embrace various subjects of deep interest; some of which we will attempt to name, in order that our readers may form something like a *guess* at the importance of the work. The 14th lecture discusses the connexion between the *kind* of soil and the *kind* of plants which grow upon it; points out the best methods of *draining* and

illustrates those methods by *cuts*; shews the practical effects and advantages of, and lays down the theoretical views in relation to, *draining*; gives the *theory* of springs in a way so familiar as to render the subject easily understood; ploughing and subsoiling; deep ploughing and trenching, are respectively treated of in a manner to place their relative values distinctly before the reader at the first blush; and winds up by laying down certain concise and easily understood rules, for the improvement of the soil by *mixing*. This is a most valuable lecture, and sets forth the necessity for, and advantages of, draining all lands abounding in an excess of moisture so clearly, that it is impossible for any intelligent mind to resist the conclusions at which the writer arrives. The 15th lecture is upon the improvement of the soil by chemical means; treats of saline manures; of the theory of the action of potash and soda; of the sulphates of potash, soda, magnesia, gypsum, nitrate of potash and soda, the effects of nitrates on crops, as also of common salt, ammonia, ashes, kelp, and in fine, of all the mineral manures. The 16th lecture treats fully of the use of *lime* as a manure, and enters minutely into all its operations, effects and consequences, and throws as much light upon the subject of limeing as any other work yet published. The 17th lecture is a most enlightened dissertation upon the uses, virtues and effects of *organic manures*, in which the efficacy of the application of green vegetable bodies, is comprehensively illustrated; the peculiar adaptation of various plants to particular purposes are pointed out; the improvement of the soil by laying it down to grass, by the use of sea weed, and various other substances, are exemplified; the value of different vegetable substances as manures are very conclusively shown, and, in fine, every collateral branch within the range of organic manures, are amplified. And the 18th lecture dwells most fully upon the value of every variety of *animal manures*, their properties and action.

From a very careful reading of the work we are prepared to say, that Professor Johnston has performed a most acceptable service to the cause of husbandry, and especially so far the *common sense* manner in which he has arranged and treated the more scientific portions of his lectures. He appears from the very onset to have been aware, that, to render his labors of utility to the great body of his agricultural readers, he must bring science down from the stilts of the closet and array it in the garb and language of the every day pursuits of life. With such views for his objects, he has produced a work calculated to please, enlighten, instruct and gratify the practical as well as the scientific farmer. In a word, his work is adapted to every capacity, and must, from its intrinsic merit, commend itself to the agricultural community. We therefore, sincerely wish that the enterprising publisher may be handsomely rewarded for his public spirit in undertaking the enterprise.*

[Amer. Farmer.]

* Mr. Miuor is informed that this work would find a ready sale in Charleston, for which the Publisher will act as Agent.

DANA'S MUCK MANUAL, AND RUFFIN'S ESSAY.

I have been so well pleased with the good sense running through the following article, which I find in the July No. of the North American Review, that I am induced to forward it to the Cabinet. Agriculture is often said to be a *matter of fact* operation and *book farming* is much laughed at. So it may well be, when theory is made entirely to supercede actual experiment, and is persisted in, when *facts* contradict it. But I have long been of the mind, that the farmer who looks into the writing of those who theorise and speculate upon the different modes of operation that are brought into play, even in such simple things as planting potatoes and cutting wheat, will not be likely to raise any fewer of the one, nor to make any more mistakes in gathering the other, than his neighbor who eschews all instruction, and takes *status quo* for his motto. I am well satisfied from my own experience, and my own errors, that on the subject of manures—I have more particular reference to their use—there is abundant room for farmers to be instructed. To buy manure, runs away with a great deal of our cash: and if bought, what is the best kind? To make it—to husband it, and to use it to the best advantage, are considerations of the first importance. We may toil early and late, but we can hardly give attention to a subject on our farms of more serious importance than that of manures. And this is my excuse for troubling you with this article.

A. N.

Mount Holly, N. J.

"Great improvements have been made of late years, in the application of science to the arts, and for other useful purposes, and in no department have the beneficial results of such an application been more manifest than in that of agriculture. People are willing to undergo the labor of making themselves acquainted with new views and facts promulgated by scientific men, and to incur the expense of reducing them to experiment, when the advantages from a successful trial will be tangible, and the results immediate. Hence comes the eagerness with which Dr. Liebig's recent publications have been received in this country, as evinced by the rapid sale of large editions. Not all the persons who buy them are capable of judging of their scientific merits, nor is it necessary that they should be. A practical test is at hand, which any one can apply. A trial soon determines the worth of the reputed discovery, or novel application of principles formerly known, and if the expected results follow, it matters not if the reasoning be unsound, and the *data*, which form the premises, be hastily put together and insufficient. The inquirer may have hit upon the truth by accident.

"It is a good proof, therefore, of the value of such works, that the sale of them is continued and extensive. Tried by this rule,

the two publications before us must possess considerable merit. Dr. Dana's Manual has passed to a second edition, and the trustees of the "Massachusetts Society for promoting Agriculture," have purchased one hundred copies of it for immediate distribution.—Mr. Ruffin's Essay, an octavo of three hundred closely printed pages, has reached the third edition. These facts afford a strong presumption in favor of the two books; for they are purchased, of course, only by practical men, who have found it to their advantage to apply the principles contained in them to the details of agriculture. 'In the few years,' says Mr. Ruffin, 'which have passed since the issue of the preceding edition, it is believed that the use of marl and lime in lower Virginia, has been extended over thrice as much land as had been previously thus improved; and the previous clear income of the farmers thus fertilizing their lands, has been already increased'—to an amount that we dare not mention, lest we should be suspected of practising on the credulity of our readers"

[*Farmer's Cabinet.*]

IMPROVEMENT OF CORN, WHEAT, &c.,

To the Editor of the American Farmer.

I had the pleasure a few days ago, of showing you a couple of stalks of corn, *each containing seven perfect ears.* They were taken from a field of twenty-five acres, on the farm of Gen. T. H. Forman, of Cecil county, Md. and were a fair sample of the crop. General Forman informed me that he had many years ago adopted the plan of selecting his seed corn, always taking it from the stalks that have the greatest number of perfect ears; and that by continuing this practice he has brought his corn to the high quality represented by the specimens alluded to. This has been uniformly the result with all who have perseveringly practiced it. The first, I believe, to do so, was Mr. Cooper of New Jersey, forty or fifty years since; then the "Maryland twin corn" was produced by some gentlemen on the Eastern Shore; then the Baden corn was announced, and the Mercer corn, also; all were produced in the same way. General Forman intends to measure an acre, which shall be a fair sample of the whole field, and let us know the quantity of shelled corn it shall have produced; this will enable our farmers to compare the product of this corn with that of the common kinds.

A word or two on the utility of attending to such things by our farmers. The wonder is that every body does not do it, and the only reason I can suggest for its not being done, is, that people are not generally aware, that all kinds of plants may be improved by careful attention to *breeding*, just as much as animals are. There are at this day very few farmers so ignorant as not to know that

their horses, cattle, sheep and hogs, are wonderfully improved by a judicious selection of breeders. You will scarcely find a farmer now that does not improve his stock by this means. I need not enlarge on this fact. But where are they that improve their corn and wheat, and rye and oats, in the same way? They are only found here and there, and so seldom, that they are considered prodigies. Every body, almost, when he wants an improved article of this kind, purchases some celebrated kind for a trial, which may or may not be what is represented, or may or may not suit his soil or his climate; but never thinks of improving what he has already got. No one ever thinks of crossing the breed of his corn, wheat, rye or oats, and thus improving them; and very few even take the trouble of selecting the best of that which they have for seed. Let me assure our farmers that they can improve their corn and all other crops by *cross breeding*, just as easily as they can their animals. They can change the size and color of the cob; make the corn early or late, yellow or white, soft or flinty; all by *cross breeding*, with no cost and very little trouble.

Generally, all that is done to improve our crops is by manuring the land and cultivating the growing plants. Now for a moment let us see how it would do in improving animals, merely to feed them well and give them good stabling, paying no attention at all to the selection of breeders. All will admit that stock raised and kept in this way would soon "run out," no matter how good it may have been at the beginning. Well, what is high feeding of stock but analogous to high manuring of land? The one feeds the cattle, the other feeds the crops; neither does any thing more than supply the wants of the individual animal or plant. It does not and cannot change the character or quality of its progeny. When *feeding*, either of plants or animals, does all it can, it does no more than simply keep the individuals as they were, in reference to their natures—it generally produces a good crop, or a fat animal, and that is all.

"But," I anticipate I shall be asked, "*how* are we to improve our corn, wheat, &c., by cross breeding?"

Wheat, rye, and oats, may all be treated alike—and the process given for one will answer for all. Take several *good kinds* of wheat, bald headed and bearded, blue stem, purple stem, red and white, five or six kinds in all; mix them together thoroughly, and sow the parcel in some good ground at a considerable distance from any other wheat field. At harvest time go into the field and select the best heads, those that are largest, best filled, and that contain the best grains, on the shortest and robust stalks, and keep the seed for another year's sowing. The next year at harvest make the same selection for seed. Continue this selection for two or three years, and then you will find you will have a wonderfully improved variety of wheat. But to keep the quality of this new wheat up to its standard, and even to continue the improvement,

you ought always to select a quantity for the succeeding year's sowing in the same way. This is not as troublesome as at first sight it appears to be. A half a bushel or a bushel of seed wheat may easily be selected in this way in a few hours—hours that possibly might not have been devoted to as profitable employment.

The *cross breeding* of corn requires a little more trouble. You have an excellant kind of corn, but it is late in maturing and has rather a large cob. Select some other kind of corn that ripens as early as you desire, and has the right sized cob. Plant your late kind as early in the spring as you can, in every alternate hill, leaving the other hills vacant. At a later period, say 20 to 30 days later, (according to the difference between the two kinds,) plant the vacant hills with the early corn. The place of the experiment should be remote from any other corn field. Cultivate both in the usual way, until you observe the tassels of the early kind beginning to push. Then carefully cut out all the tassels of this early kind—do nothing to the late kind. Watch carefully and cut out all tassels as they appear from this kind. When the corn is ripe select all the good ears of the early kind for next year's planting. Plant this selected seed in the usual way the second year, and when ripe select the best ears of the earliest ripening. You will find in these ears a variety of grains in shape and color, and of different quality—there will be grains resembling both original parent stocks. Now select the grains that suit you. All the grains will produce a small cob and early corn; but some of the grain on the cobs may be small and inferior like the original parent; therefore on this the third year, select the grains. Generally this third planting will establish the variety; but the better way is to continue to select your seed every year. You may now select seed with a view to increasing the number of ears to the stalk; but take care to avoid selecting small ears simply because there are many on the stalk. If you find a stalk with three full sized ears, it is better to take them than those from a stalk that has four small ones.

By these means corn is susceptible of almost any degree of improvement and change of character; and I am fully satisfied that there is no one branch of agriculture that would so well pay for the small amount of labor and attention required.

[*Amer. Farmer.*

THE POLLEN OF CORN-STALKS.

MR. EDITOR:—Your correspondent from Hingham, whose communication appeared in a late number of your paper, from some experiments made by him with a view to ascertain the effects of

"suckering," as it is termed, Indian corn, infers that the practice is injurious to the crop. And he undertakes to account for the injury by supposing that it is caused by depriving the ears on the main stalks of such supply of pollen as would be afforded by the suckers, if permitted to remain. This supposition gives to the suckers in a corn-field a degree of importance which I confess I did not suppose them entitled to.

I am aware it is of little practical consequence, whether the injury in this case be caused in one way or another, provided it be shown to be an injury, or otherwise. Yet as the views of your correspondent are so much in contravention to those of my own, I cannot well resist the inclination to say a word on the subject.

Are, then, his views correct? Is not the agency they ascribe to the pollen of the sucker imaginary rather than real? It has fallen under his observation that the tassels of the main stalks "became dry and destitute of pollen," essential to the formation of "every kernal," before the ear had attained its full growth. Hence he conceives it to be in accordance with the "beauty and perfection of design," to suppose as he has done, that the sucker is seasonably provided to make good the deficiency of pollen, at a time when so much needed; and that the supply by it will be continued, "so long as there is silk on the end of the ear." Such, substantially, is the argument adduced in favor of the supposition he has adopted. But after the tassels of the main stalk has "become dry and destitute of pollen," would any supply of it afforded by the sucker avail any thing in perfecting the growth of the ear? Would it not then be too late for this? That it would not, seems to be assumed, not shown. It is, however, an assumption evidently not in accordance with the principles of vegetable physiology.

The tassels in the cases observed, became dry and withered. So they do in all cases; as well on stalks where the ears are not, as where they are perfected. But this does not occur until they have accomplished the purpose for which nature designed them. This appearance exhibited by them, therefore, is evidence (perhaps the first) of the *maturity* of the plant.—Hence the just inference seems to be, that the tassel's becoming dry is an indication, not that its function has prematurely ceased; but that it is no longer needed.

The natural presumption surely is, that the tassel of every stalk is provided with a sufficient supply of pollen, which it will afford as long as the silk or ears thereon are capable of receiving its impregnating influence. Such presumption not only does no violence to, but places it in strong light, that beauty of adaptation so conspicuous throughout the works of creation; and which any other hypothesis would serve only to mar and deform.

But further: That perfect and full ears of corn are produced on stalks in hills having no suckers, and that imperfect ones are often the produce of those having many, are facts which seem to show,

that in some instances at least, the pollen of the suckers does not exert any influence in perfecting the growth of the ears on the main stalks. But if it be so in some instances, why may it not be so in all? I am not aware that any thing has been shown authorizing a different conclusion.

All plants we are told derive the principle part of their nourishment from the atmosphere. The humus of the soil combining with the oxygen of the air, produces carbonic acid. This, it is said, constitutes their principal food. This food, in the case of the corn plant as in that of all others, is appropriated by its external organs of nutrition—its stem, leaves, &c.—and goes, in the first place, to underrate their growth, and after their complete development, to perfect that of the seed. The growth of the sucker is under the dominion of the same laws as those which regulate that of the principal stalk. Each protrudes its radicles, (with the exception in the case of the sucker, of that from which it springs,) and shoots forth its blades in the same manner; and then gathers nourishment for itself through the instrumentality of its own organs. Thus often the blade appears, the development of each, so far indeed as the latter is developed, is effected independently of the other.—But if the sucker is not needed to perfect the material organism of the main stalk, I see not how it can be *necessary* to perfect the growth of the ear.

West Bridgewater, Aug. 31, 1843.

[Mass. Ploughman.]

H-

CITY MANURES.

I have lately read in the Bath and Cheltenham Gazette, published in the city of Bath, England, that a Professor Daniels had taken a patent for a new compost, composed of wood saw-dust, charcoal, lime, and a small quantity of bitumen. It stated he had secured patents in England, France, Germany, and this country. If any reliance can be placed on the account given in that paper of its fertilizing power, it must far exceed all other known composts. It stated that the professor had taken a given quantity of land, on which he had raised wheat four years in succession, increasing the product every year. Our farmers must be aware that this has ever been considered impossible. The first year the land was in its usual condition, and the crop was twenty-six bushels to the acre; the second year he applied some of his compost, and the crop was thirty-six bushels; the third year he added more of his compost, and the crop was forty-six bushels; the fourth year he gave more of the compost, and the crop was fifty-six bushels. He expressed himself confident of bringing the crop up as high as one hundred bushels to the acre.

It has been long known that decayed wood, frequently found on

wood land, was much valued by the horticulturists. I often had it collected, in England, for my own garden : but as it was not very abundant there, it was always used on the flower beds.

From the number of saw-mills at work in the cities of New-York and Brooklyn, the annual supply of wood saw-dust must be very large ; and I would advise some of our enterprising farmers to collect and try it in their compost heaps, adding slackened lime and fine charcoal. The lime is apparently applied to cause a more rapid decomposition of the saw-dust, and to neutralize any acid it may contain ; but it will be seen, in the following article on urine, that when in the soil it plays an important part in promoting vegetation. I would advise our farmers to put the above-named compost into their barn-yards and hog-sties, where it will not only undergo a rapid change, but the charcoal will absorb and retain all the ammonia now lost by evaporation. If a portion of the saw-dust should be the product of pitch-pine timber, no bitumen need be added ; but when this cannot be obtained, a small quantity of crushed rosin or pitch may be added to the compost heap.

I shall proceed to bring to your notice the urine thrown away in our cities. In the first place, I will show you the component parts of vegetable matter, and of carbonate of ammonia. By comparing the two, you will readily appreciate the importance of saving every drop of urine from your own families and barn-yards, as well as collecting it from our cities. In this explanation I must necessarily use scientific terms, as we have no common terms in our language by which to express their meaning. By comparison, however, the terms will show you that the component parts of vegetation and of carbonate of ammonia are the same, excepting about eight per cent. of the solid portion of vegetation.

The average elementary portion of vegetables consists of about 480 parts of carbon, 65 of hydrogen, 369 of oxygen, 40 of nitrogen, and about 46 solid matter, in 1000 parts.

Carbonate of ammonia contains, in 100 parts, about 50 parts carbonic gas, 30 parts of ammonia, 20 parts of water. Carbonic gas contains carbon and oxygen ; the ammonia contains hydrogen and nitrogen. Thus we perceive that carbonate of ammonia contains within itself the elementary portions of all vegetable products. There is no other known substance containing within itself all these elements, and hence is derived its wonderful fertilizing power.

Stale urine contains a large portion of ammonia and of ammoniacal salts, which are mostly lost by evaporation, as will continue to be the case, unless some material be combined with it capable of retaining the ammonia. Charcoal is undoubtedly the best substance for this purpose, as it will take up and retain within its pores, more ammonia than any other known material.

Charcoal is a valuable product in the soil, independent of its retaining ammonia when presented to it by human agency. "It absorbs in large quantity into its pores, the gaseous substances and vapours which exist in the atmosphere." It separates from water

any decayed animal matters or coloring substances which it may hold in solution. It also holds moisture with a tenacity greater than any other known material.

Our farmers may tell me they are well aware of the value of urine, but may ask how are they to collect it in sufficient quantity. I have thought of this difficulty, and believe it may be overcome by a little perseverance. There is a small shed behind the city hall, where many thousands of gallons might be annually collected. Let some farmer get the privilege from the corporation, of putting down a large receiver there under ground, filling it half full of fine charcoal, so as to take off the effluvia—now so offensive—on condition of its being emptied twice a year, spring and fall. Let the same system be pursued at all the large eating houses and taverns. Instead of such places being as now, injurious to the health of the neighborhood, they would become perfectly sweet and inocuous. The difficulty would be greater in families; yet if it can be proved that those who inhabit houses can derive an annual income from attending to it, as well as take off all bad smells from every square in the city, I should presume the double inducement would cause the system to be generally adopted. The greater portion of the urine of families is daily thrown into the privies. If every family would have theirs emptied once a year, and when emptied, put into the vault two barrels of charcoal and add one barrel of charcoal every month afterward, at the end of each year they would have about forty bushels of poudrette and urate, of a far better quality than any now sold, worth twenty-five cents per bushel, to the person who may take it away, exclusive of the expense of removal. Thus every family might make a clear income of eight dollars per annum, beyond the cost of the charcoal, and keep the whole city free from the abominable excrementitious effluvium now so pernicious to the health and so obnoxious to the olfactories of our citizens.

It will be seen that carbon and oxygen from eight and a half parts in every ten of vegetable matter, and it is more than probable that carbonic gas supplies the whole of it. How amply has Infinite Wisdom provided for this immense demand! Can the geologist measure the carbonate of lime and other carbonates laid up by Creative Wisdom in our globe? Can the physiologist count the weight of carbonic gas daily exhaled by the animal creation? Can the philosopher form a distant conception of the immense supply hourly liberated by the rapid and slow decomposition ever progressing on our earth's surface? If man has not the power to measure or count the supply, he has given to him the power to collect and apply it for his individual and general benefit.

It was my intention to have explained, in this essay, the effect of lime in promoting vegetation when mixed in soils, as hinted when treating of its operation on saw-dust; but as this article is already too extended, I shall defer it to some future opportunity.

WM. PARTRIDGE.
[American Agriculturist.]

MIXTURE OF SOILS—SAVING OF URINE.

The improvement of our lands, by the mixture of soils, is a means almost entirely neglected in our country. There have been, to be sure, a few honorable and striking exceptions; but these are so few as to be scarcely worthy of notice; for their example appears to have been unproductive of a tithe of the influence to which they were intrinsically entitled. In England, however, instances are as numerous as they have proved beneficial, where the most striking and lasting improvements have been brought about by simply mixing clay with sand, and sand with clay. By this process, not only the *textures* of the soils of extensive landed estates have been changed, but a capacity for retaining the benefits of manure imparted to loose sands, on the one hand, while on the other, stiff unwieldy clays have been so broken down in their adhesiveness, as to be rendered friable. Nor is this mechanical change, so beneficial to either grade of soils, the only resulting good. As in all virgin clays there are a greater or less proportion of potash, and more or less portions of lime and the other mineral salts; so that by adding and mingling such clays with loose sands, we not only convert them into moulds, but supply also, many of those salts which are absolutely essential to healthful and productive vegetation.

We have always maintained, that a load of rich clay, applied to porous, hungry sands, if thoroughly mixed therewith, by ploughing, cross ploughing, and harrowing, would prove a more lasting benefit than the same quantity of the richest animal or vegetable manures. Indeed, we believe, if, to every load of barn yard manure, one of clay were added, that one half the quantity of the former would answer better than the whole now does. The reasons are obvious. By mixing the clay with the sand, tenacity would be imparted to the soil, an ability created to retain moisture, and, to a certain extent, prevent the escape and consequent loss of the essence of the manure by evaporation.

The above reflections, as to the advantage of using clay as an auxiliary manure for light sandy land bring us to the consideration of the question, as to the best and cheapest method of applying them. In a country like ours, where labor is dear, and time may very properly be said to be money, there are but few of us who could probably undertake to give at one dressing the requisite quantity of clay, to convert, by admixture, the sandy into a loamy soil; but the end can be attained in a way so that neither the labor nor the expense will be materially felt as a tax. Let a hundred or two loads of clay be, at the begining of every autumn, spread over the barn or cow yard, and thereon be placed a covering of leaves and mould from the woods. Such a body of materials would comprise an admirable bed for the cattle to winter upon: would

form an absorbing substance to drink up and retain the liquid voidings of the cattle through the fall, winter and early spring, which when mixed, at the time of carrying out the manure, with the litter and solid excrements which had, in the interval, accumulated thereon, would prove a body of manure rich in all the elements of fertilization, as well as form a basis for amending the soil of singular value. By repeating this course of applying the clay, a vast amount of liquid manure would be saved that is now lost, and the texture of the soil would be changed in a few years, without the time or expense being seriously felt. But to render the value of the *liquid* manure the more available, or, in other words, to prevent the loss of its more valuable and volatile parts, it would be well to spread a few bushels of plaster or charcoal over the clay, say 1 bushel to every 20 loads, so proportioning its distribution, as to have about one fifth part spread every three or four weeks. By this means there would always be a fresh body of plaster or charcoal present, to assimilate with and prevent the escape of the ammonia of the urine of the cattle, and thus preserve it for the purposes of fertilization.

Without entering into any minute calculations upon the subject, it may be assumed as the result of chemical analysis and experiments, that every animal of the cow kind kept in a barn yard, when well fed voids urine enough each day, if the escape of the ammonia were prevented, to manure ground enough to produce from two and a half to three pounds of wheat—this is less than the quantity claimed—and that three-fourths of that gas can be saved by the judicious use of plaster or charcoal, in the process we recommended, we do not hesitate to state as our honest belief. If such be the state of the facts in the case, every farmer can make his own calculations as to the loss he annually sustains, by letting the urine of his cattle go to waste, and if he be prudent, he will not hesitate as to what is the proper policy for him to pursue.

We have referred to this subject at this particular time in order that farmers may be reminded of it in time to make the necessary arrangements against fall, to avail themselves of the advantages to result from such a husbandry of one of the very best manures that they can use. In speaking of the several substances, we have endeavored to be plain in order that, in striving to be useful, we might not run the risk of bewildering.

[Amer. Farmer,

PROPER DEPTH FOR PLANTING SEED.

Various experiments have been tried to determine the proper depth at which seeds should be put. The following is the result of an experiment with maize or Indian corn:

That which was planted at the depth of

| | | |
|-----|----|-----------------------------|
| No. | 1. | 1 inch, came up in 8½ days. |
| 2. | 1½ | " " 9½ |
| 3. | 2 | " " 10 |
| 4. | 2½ | " " 11½ |
| 5. | 3 | " " 12 |
| 6. | 3½ | " " 13 |
| 7. | 4 | " " 13½ |
| 8. | 4½ | " " — |
| 9. | 5 | " " — |
| 10. | 5½ | " " 17½ |
| 11. | 6 | " " — |

The Nos. 8, 9, 11, were dug up after 22 days, and it was found that No. 8 had an inch more to grow to reach the surface of the earth. Nos. 9 and 11 had just sprouted, but were short, and three inches below the surface. No. 10 came up in 17½ days, but the tender leaved remained only 6 days green, and then withered. There is no experiment which shows more clearly the advantage of a shallow planting in a soil not too loose, and trodden down, than this. The more shallow the seed was covered with earth, the more rapidly the sprout made its appearance, and the stronger afterwards was the stalk. The deeper the seed lay, the longer it remained before it came to the surface. Four inches was too deep for the maize, and must therefore be for yet smaller grain kernels.

Petri gives an experiment made on rye, with the following results. The first column shows the depth at which the seed was put; the second, the number of days that elapsed before it appeared above ground; the third, the number of plants that came up:—

| Depth. | Appeared. | No. plants. |
|---------|-----------|-------------|
| ½ inch, | 11 days. | 7-8 |
| 1 " | 12 " | all |
| 2 " | 18 " | 7-8 |
| 3 " | 20 " | 6-8 |
| 4 " | 21 " | 4-8 |
| 5 " | 22 " | 3-8 |
| 6 " | 23 " | 1-8 |

The root-stalks forms itself always next below the surface of the ground, and if we place the grain deep, it must first put out its sprouts to the surface, and from its side-branches in a nearer connexion with the air. We never find that the sucker-roots are ranged from below to above, but the contrary.

From the experiments of Ugazy, who tried seventy-six with different grains, it is clear that shallow sowing, if the seed is only so far covered as to sprout, and the germ is protected from immediate contact with the air, is preferable to laying the seed deep, because it springs up quicker, and acquires a stronger growth, and has hardier plants."

[Smith's *Economy of Farming*.

CULTURE OF CORN.

We have to thank our friend Rutherford for the subjoined letter, giving his experiments in the culture of corn on a new system. We are the more obliged to him, who we know to be a young farmer, because of the excellence of his example to the old men, in giving us the results of his experiments—an example which we trust will not be lost on our planters generally. The experiment speaks for itself, and we commend the letter to the careful consideration of our readers—let them reflect upon its truths and improve upon its suggestions.

Crawford Co., Sept. 15, 1843.

MESSRS. EDITORS—The communication which I am about to make, I designed making to the Albany Cultivator last year, and would have done so had it not been for my aversion to appearing in the public prints. I at several times thought of making the communication over a fictitious name, but reflected that facts are not so apt to be received *as such*, unless a man vouches for their truth in his own proper name.

It may be proper to say, in the outset, that I am cultivating land on Flint river, which I settled some four years since for my father, and which, in the common language here, is “as rich as land ever gets to be.”

Last year I planted for experiment one acre of corn in the following manner:—The ground was first broken very deep and then laid off *two feet* each way—the corn planted in the checks and covered with the foot. When it was up about half leg high, I had it flat weeded and thinned to one stalk. When silking I had it flat weeded again, and this finished the cultivation—it never having been ploughed at all. About the time the corn was grown, a severe wind prostrated it in several places, so that I feared my experiment would fail at last. In addition to this disaster, it being in an exposed situation, the squirrels destroyed a good deal—the outside row was, I think, entirely consumed. At a proper time I had what was left gathered, shucked out, and measured the ears in a barrel in the same manner as we purchase and sell corn. I had one barrel shelled, and as I had no measure upon which to depend, I weighed the corn thus shelled. According to the weight of this barrel, the produce of the acre, as gathered, was five thousand one hundred and four pounds.

Now farmers differ as to the weight of a bushel of corn. In the Southern States it varies from 50 to 56 pounds; the latter being the maximum weight. This I allowed, and you will perceive, upon calculation, that this will make it 91 bushels and nearly half a peck.

I have given you the result of an experiment tried under many disadvantages. I will now give you the reasons which induced me to plant as I did. It is a fact well known, that corn matures better

in a colder climate than ours, and from this I inferred that it suffered too much from the intense and *collected* heat of the sun in our climate. This is one reason why I planted so close, for when grown in midsummer, the ground, and therefore the roots, would be protected from the sun by the shade of the corn itself. Another reason was, that in appropriating a given number of stalks to the acre, they had better be planted at equal distances from each other in every direction, so that the roots of one stalk will not interfere with those of another. By this system you make it more profitable, as every particle of earth will be reached by the roots, and no portion of soil be free from effort while other portions are overtaxed.

Another reason was, that when planted so as to shade the ground, (strange as it may appear,) it would better stand a drought, by preventing the largest portion of a shower from evaporating, as is the case where the sun has free access to the ground. That this idea may not appear so novel, I ask you to reflect that the spots which remain moist for the longest time in the woods are those which are covered with the densest growth.

Another was, that it would save labor in the cultivation; for when the corn is high enough to shade the ground, weeds and grass cease to flourish. And still another reason was, that it saved the necessity of cutting the roots with the plough. I know this is a controverted point among practical farmers; but I would just as soon expect that an animal would be more thrifty by having his limbs broken or his mouth lacerated, as to suppose that a plant would be more vigorous in consequence of having its leaves or roots injured. The latter, vegetable physiology teaches us, serve as the mouth, and the former as the lugs, of plants. It has again been objected, that such close planting prevented the corn from getting *air*, which was necessary for its health. It has seemed strange that this objection should have been urged, for if a philosopher were experimenting in pneumatics, he would hardly say his receiver was "*air-tight*," if it had a crack of *two feet* in it. Finally Messrs Editors, we may theorize on the subject as much as we please, and there may be as many objections urged as it is possible to produce, yet unprecedented success and a full "crib" will answer them all—at least to my satisfaction.

There were two other acres connected with the one upon which the experiment was tried, part on one side and part on the other, planted and cultivated in the usual way. The product of both together scarcely equalled the one I report, though the corn had been worked oftener. This year I have planted some 8 or 10 acres after pretty much the same plan, and it is decidedly the best corn I have, the freest from weeds and grass, and will doubtless produce double of any other corn on the plantation, though the land is equally good elsewhere.

I am your friend, truly,

WILLIAMS RUTHERFORD, JR.
[*Southern Cultivator.*]

REPORT OF THE FISHING CREEK AGRICULTURAL SOCIETY.

The Visiting Committee, appointed by the Society to review the crops, accompanied by most of the members, performed that arduous, but pleasant duty, commencing on the 24th of July, beg leave to REPORT.

On Monday morning, at the appointed hour, the Committee met at Mr. Crawford's on the east side of Fishing Creek, and proceeded to examine his crop. Owing to the measles in his family, during the spring and early part of the summer, his crop did not present that appearance of improved culture, which was to be expected from an early member of our Society. But your committee feel disposed to overlook the condition of his crop, and attribute it entirely to the calamity above alluded to—your committee were highly gratified to see that his stock is improving, by the introduction of a fine Berkshire pig into it—a sufficient index that, with him, the spirit of improvement is abroad.

The farm of Mr Harvey Crawford, was the next to which the attention of your committee was directed, and they take great pleasure in saying, that they found his crop in excellant order, his corn and cotton showing that skillful cultivation, which it is the intention of our Society to promote. We were also gratified to see, that he is introducing the Berkshire family into his stock.

We then proceeded to examine the farm of Mr. Alexander Crawford, our indefatigable and public spirited President, whose crop, taken altogether, was very creditable to him as a farmer. The early day at which we commenced the review, was unfavorable to the appearance of his crop, as he had a great deal of young corn, and of necessity, not in a finished state of cultivation. There your committee found what is hard to beat, a Berkshire pig, 4 months old, weighing 86 lbs.

From Mr. Crawford's, we crossed Fishing Creek, and entered the farm of Mr. John Chambers, (our host for the day) where we were shewn some very fine corn and cotton; also, a fine meadow and clover patch. * * * * *

Dinner being over, we examined his stock of hogs, which, though boasting of no trans-Atlantic cross, would do credit to any farmer of this or any other country.

After leaving the farm of Mr. Chambers, we visited that of Mr. Perry McCulough, whose corn, we consider equal to any we have seen in the Society; and cotton, a very fair sample. He showed his cattle, which, though of the common Stock, were very fine. * *

The review of Mr. Samuel Boyd's crop, closed the labors and pleasures of the day, and though last, was not the least we examined on that day—his corn and cotton were both a fair sample of Fishing Creek production, and although heavily cropped to his force, acquitted himself with honor.

On Tuesday morning, at an early hour, your committee, with renewed strength and high spirits, wended their way over Fishing Creek, into the Province, vulgarly called "Big Hungry," to view the crop of Dr. Benjamin Johnston; we found him expecting us, and after regaling us on cider and watermelons, in a manner calculated to make us believe that the cognomen of his particular region, was a misnomer—he invited us into his garden, where we were shown luxuriant beds of Strawberries, Tomatoes, Okra, &c. From thence, we proceeded to examine his crop—we found his cotton very good, and his bottom corn, if it could have had proper cultivation, would have been very fine, but owing to heavy rains and a large crop, it could not receive that culture it required—his upland corn was of medium quality. Mr Johnston has a very fine stock of cattle, but not of any improved cross.

We then proceeded to the farm of Mr. John Simpson, who is, strictly speaking, a mechanic, or rather a universal genius, as every thing to which he turns his attention will show. His farm, consisting entirely of corn, shows his skill in cultivation, worthy of imitation by every farmer. But when you enter his shop, you will be astonished at the ingenuity that will meet the eye in every direction—machinery for all purposes of his trade, invented or improved by himself, and we have no hesitation in saying, that Mr. Simpson's shop will present more objects of astonishment to the eye of the curious inquirer, than any place of the kind in the Southern country. We then re-crossed Fishing Creek, and at two o'clock, arrived at the house of Mr. L. A. Beckham, our host for the day. * * * * * We found his cotton very fine, and his corn of medium quality; his Berkshires, are rather of superior order; and when we examined his cattle, we recollect that he obtained the premium on Butter last year.

Your committee next visited the crop of Mr. Ralph McFadden, whose corn and cotton was in good order, and bespoke a good farmer, and a man of taste. * * * * * He has an interest in a superior Berkshire, and his cattle are fine; we would, without hesitation, give him the honor of having the best crop in this day's visit, if it were not for the prejudice existing against his fraternity, but as your committee are bound to act without prejudice, we will make our award accordingly.

On Wednesday morning, at the appointed hour, we met on Mr. John Knox's farm, to examine it, and although almost a bachelor, your committee must, in justice, say, that his crop presented a very farmer-like appearance; his corn was excellent, and his cotton very fair. * * * * * His Berkshires show he has a taste for domestic animals, and his care of them, show his kind disposition.

We next proceeded to view Mr. James Knox's farm; his crop is corn alone, and is very good—his meadows are good, and his system of farming without cotton, shows that he prefers independence to gain, and the pleasures of relaxation, to a continue

exertion without profit ; perhaps the most of us would do better to follow his example. His Berkshires show that his stock is in the way of improvement.

We next examined the crop of Mr. Thomas Chisholme—we found his crop rather grassy it is true, for a member of our Society, but still, pretty good. * * * * *

We then proceeded to the house of Mr. Wilmot S. Gibbes, our generous and highminded host for the day. After our morning's ride, the refreshment and dinner provided by our host was very welcome. * * * * After dinner, we was his stock of cattle, which were very fine ; his Mississippi Berkshires were superior animals, and his flock of sheep would have graced a Northern pasture. Mr. Gibbes has quite an extensive garden and orchard, besides having many choice fruits, he showed us a great variety of rare plants and flowers, and quite a superabundance of culinary vegetables. Your committee were shown a new Cobb Mill on an improved plan, which is quite worthy of patronage. The unfavorable weather in the afternoon, prevented an examination of his crop, but what we saw, did justice to his experience as a farmer.

On Thursday morning, again at the appointed hour, the committee met at Dr. Thomas W. Moore's, and proceeded to the examination of his crop, which we found in a very credible state of cultivation—his corn, on old upland, was very fine, and his cotton bid fair to make him a handsome yield ; his extensive meadows, both of the artificial and natural grasses, and the general adaptation of his lands to the production of grain, renders his plantation valuable, especially when our great staple is so depreciated. He showed us a three year old Berkshire Boar, the best in our society, which has already proved a valuable acquisition in our neighborhood, and the freedom of his range, evinces the liberality of his public spirited owners.

The committee then proceeded to the farm of Capt. James A. Lewis, we found his crop in first rate order—his corn, the finest kind of upland, and his cotton, a fair specimen ; we counted on a single stalk, (planted on Dr. Cloud's system,) three hundred and sixty-eight bolls, blossoms and squares. * * * * *

From thence, we entered the farm of Dr. Henry Gibbes, and examined his crop; the drought was very severe on his corn, as it was planted rather thick, and did not present that luxuriant appearance desirable ; his cotton, however, showed a high state of cultivation, and looked exceedingly promising. It is worthy of remark, that his whole cotton crop was manured in the drill. The Dr. showed us his fine clover fields, which were in pasture, and told in the improved condition of his stock ; his fine Durham Bull, 18 months old, is a superior animal, having the dimensions already of our grown native stock ; he has a large stock of hogs, mostly Berkshires, and some of them remarkably fine, and last, but not

least, the Doctor set us down to a well furnished table, prepared with domestic luxuries, choice mutton from his own flock, and well turned Berkshire hams, together with all the dainties of a fruitful garden.

From Dr. Gibbes', the committee entered the farm of Mr. D. H. W. Boyd—his corn showed the effect of protracted drought, and his cotton, the inevitable consequence of planting it on soil not adapted to its growth,—his land is a heavy Black-jack soil well adapted to grain, but not to cotton. His Berkshire sow, which took the premium last year, is a good breeder, and we would advise those who wish to improve their stock, to avail themselves of the first opportunity to get some of her pigs from Mr. Boyd.

The committee finished the labors and pleasures of the day, by examining the crop of Mr. James Spears, which consists, principally, of corn; the drought sat heavily on Mr. Spears' crop, but we hope the late rains have, in a measure, overcome its blighting effects; his land, like that of Mr. Boyd, heavy blackjack, is entirely unsuited to the culture of cotton.

On Friday morning, the committee met at the house of Mr. G. H. Neely, and proceeded to review his crop, which showed that some extraordinary occurrence had prevented that attention and cultivation, which it would otherwise have received—as evidence of which, we need only state, that Mr. Neely received the premium for the best crop two years ago, against the competition of the whole society. * * * His Durhams and merinos, show the march of improvement of his stock.

We next entered the farm of the Rev. J. R. Gillan, which, though small, is well cultivated, and exhibits signs of the skilful husbandman. Mr. Gillan resides at the head quarters of our society, and cultivates a stiff, hard, clay soil, well adapted to cotton and the different grains; his Berkshires were remarkably fine, his pigs of a few months, having attained the size of yearlings of the common stock.

We next examined the crop of Thomas A. Neely.—Owing to some cause, his crop did not present that luxuriant appearance desirable, which was, somewhat, owing to the protracted drought his section of the neighborhood labored under. We would recommend him to give his land a real subsoil ploughing, as early after Christmas as he can, and we will venture to insure a favorable result.

From Mr. Neely's, we entered the premises of Mr. J. D. Crawford—at the commencement of our review, the committee were highly pleased at the sight of a novel mode of fencing, which Mr. Crawford has adopted, which combines strength with beauty and durability—we would recommend the example to the society. His corn and cotton showed the cultivation which might be expected from a prominent member of our society. His blooded hogs and Durham Cow, bespoke the treasures of the Smoke-house, and the

luxuries of the Dairy. Mr. Crawford's Merinoes look very fine.

After our morning's toil, we arrived at the house of Mr. Edward Crawford, and with gratified feelings, sat down to the ample provision he had made for our refreshment. After spending two hours in the enjoyment of table luxuries and social conversation, we went into his farm, and were highly gratified by the prospect of his well cultivated crop, and the reflection, that experience has contributed its legitimate share in making him a practical farmer whose example is worthy of imitation. His Berkshires and Durhams, evince his desire to improve his stock.

The examination of Mr. Alex. Pagan's farm closed the labors of this day; we were highly gratified to see the skilful cultivation which displays itself on Mr. Pagan's farm; it is a practical illustration that a small farm well cultivated is more desirable and more profitable than a large one half attended to; a few such examples would have a tendency to explode the barbarous system of over-cropping; the drought severely injured his crop; his corn suffered worse, his cotton looked well and promised a fine yield; his Berkshires fully sustain their reputation under his care.

On Saturday morning the committee resumed their labors by examining the remainder of the farm of Dr Thos. W. Moore, which we found in a state highly creditable to a senior member of our Society.

From thence, we crossed the south fork and reviewed the farm of George Gill, Esq. Mr. Gill is strictly a mechanic, but his crop goes to prove that science can be applied to agriculture as well as mechanism; by his skilful mode of cultivation, his crop is a fair specimen, and will bear comparison with any neighborhood or society. His hogs and cattle are of the native stock, but very fine.

From thence we proceeded to the farm of Col. Geo. Gill; in his ripe old age, he manifested that industry and judgment that has always distinguished him through life; his farm though small, evinces the skill of the agriculturist ripened by the experience of three fourths of a century. Col. Gill was one of the founders of the Society, it's first President, and one of its most useful and zealous members; our society has just cause to be proud of him.

We next examined the crop of Mr. C. S. Gill, whose farm showed him to be a worthy member of the Fishing Creek Agricultural Society, his corn and cotton being of the first order and inducing the committee unanimously to decide his crop the best in the society. * * * * We resumed and ended our labors by reviewing the farm of Mr. Robt. Millen, who though a junior member has been long known as a good farmer, and the appearance of his present crop fully sustains his reputation. His corn and cotton both show a fair specimen of Fishing Creek cultivation and production. After closing our review, the committee with feelings of pleasure and pride, returned to our house weary, but highly gratified with the labors of the week.

It is perhaps expected that your committee should report who (in their opinion) had the best crop in each division, and as the society were generally in attendance, and enjoyed ocular demonstration of the truth of our decision, we proceed to give our opinion, trusting to the candor of each member to do us at least the justice of impartiality. We then say in the 1st division, Harvey Crawford; in the 2nd, Ralph McFadden; in the 3rd, James Knox; in the 4th, Capt. Jas. A. Lewis; in the 5th, Edward Crawford; and in the 6th, C. S. Gill; and as we have heretofore said, that C. S. Gill's was the best in the whole society.

The committee would take occasion to remark that there is a fault prevalent in our society, in the cultivation of the corn crop, and that is the almost universal practice of leaving it too thick; it is a well known and admitted fact, that we cannot expect a remarkably large yield, unless we have a large number of stalks, yet it is as well known that rich land alone will bear a large number of stalks, and consequently it is from rich land we may expect a large yield; now it is the most egregious folly to calculate that thick planting alone will insure us a large crop without regard to the nature of the soil, and much of our cotton is materially injured by neglecting to give it proper distance where the soil is thin. If no other facts had come under our observation with regard to this matter than our experience in the present review, we have seen sufficient to convince us that distance should be given in proportion to the soil.

Another fault which prevails to an alarming extent, is the disposition to over-crop ourselves, while we are all ready to admit this a great evil and one which calls loudly for a remedy, yet we never apply it.

In the report of the number of acres cultivated to the hand, your committee find that from 15 to 20 are given; we are convinced from observation, that there is scarcely an acre in our society, but would yield more if better cultivated, and we would respectfully suggest to the society the ensuing year, of planting from 10 to 12 acres to the hand; we are convinced the result would be advantageous to our interest, while the labor to which we subject ourselves would be essentially diminished.

Upon the whole the committee take pleasure in congratulating the society on the improved state of agriculture within our boundary, but at the same time, we would remind you that much remains to be done before the system is perfected; go on then, persevere, and it is certain that your exertions will be crowned with the most gratifying success.

L. A. BECKHAM,

Chairman.

[*The Planter.—Columbia, S. C.*

For the Southern Agriculturist.

ACCIDENTAL MANURING.

It is generally admitted, that Mr. James King, of———Island, first introduced the use of marsh-mud as a manure in agriculture, about 40 years ago. One of his flats sent for the mud, returned loaded with a mixture of mud and shells—chiefly of periwinkles and dead oystershells. This was applied to a particular part of his field, and no further notice taken of it for many years. It was then first observed, that this part of the field was stronger land, and more productive than the rest of it. When Mr. Ruffin's inquiries produces a general investigation on such subjects, the sons of Mr. James King, now deceased, recollecting this peculiarity, asked some of their friends to go and see the field. The friends did so, and were all struck with the unquestionable superiority of the crop on this part of the field over the rest. All had been treated and cultivated alike, this only had by accident been covered with the mixture of dead shells and marsh-mud, and the mouldering shells were still visible in the soil. The conclusion was irresistible that as this had been uniformly the most productive part of the field, and as no other difference ever existed except the addition of shells, that the calcareous matter of the shells had caused its peculiar strength, or fertility.

In the Southern Cabinet, for 1840, p. 219, your correspondent Dr. Joseph Johnson says, "add lime or dead shells to marsh-mud, and you make a very complete marl." This was only speculation in Dr. Johnson, but Mr. King, by his accidental application of this mixture, has verified Dr. Johnson's opinion, and profited by the discovery. All planters on tide lands, may now obtain as much marsh-mud and dead shells, as they please, by sending for them, either separately or mixed.

A gentleman in St. Andrews' Parish, lately planted a field with corn, and one part of it flourished so much better than the rest, that he was much surprised at it. His neighbors also stopped to inquire what he had done, to make this part of the field so much more fertile than the rest. A second and a third year followed with the same result; there was no mistake about it. Mr. Ruffin came—the search was general for marl, and it was found that a bed of marl extended all along this part of the field in question,

and had been turned up by the plough. I understand that the gentleman has profited by the discovery, and is applying his own marl to all the rest of his field.

Another gentleman in St. James', Goose Creek, being about to plant two fields with corn, very industriously provided all the pen and stable manure, that he could command, but it only proved sufficient for one field. He had been digging a canal, or wide ditch for the improvement of his lands, and threw up a bank, of what all supposed to be light colored clay. This was adjoining to the field, for which he had no stable manure provided, and he ordered the light colored clay to be scattered over it, saying that it would stiffen the soil, and expected nothing more. A friend of his passing over the field, told him that it was useless, as such light colored stuff could have no strength in it, but it was spread. The summer progressed, and he frequently told his friend, that the crop in this field was better than that which he had fully manured, and both were surprised. The inquiry after marl became general, and this light colored clay proved to be excellent marl. It was applied again this year, and with results still more decided and unquestionable. A part of the same field was left unmarled, and any one could point it out, from the different appearance of the crop.

This year also, the same gentleman determined to plant an old rice-field; and after ditching, he ploughed it with a strong plough to break up the roots and stiff sods. The crop grew well, as all other rice crops have done this year; but one part of it to a certain extent from the highland, had a much finer color and greater growth than any of the rest in the field. The gentleman was induced to go into his rice-field, and examine the soil; he there was much gratified to find, that the deep ploughing had reached a bed of marl, and numerous specimens of it were scattered over the surface of the rice-field.

This is an important discovery—marl and lime have never been applied to the land in rice culture, as far as we know, in any part of the world, except by Genl. T. Pinckney to spots of salt in his fields. If this discovery be confirmed, by future experiments and trials, the productions of our rice-fields may be greatly increased, and probably the rice culture be less injurious to health. Your

correspondent B., in your September number, p. 324, recommending manure to rice lands, distinctly asks "why may not the mass of it (the rice stubble,) be turned into the soil, or be mixed with something by which it might be fermented, or mixed with lime and thus more readily become vegetable nutriment?"

L.

MACHINE FOR PREPARING COTTON FOR MARKET.

Live Oak Lodge, Mobile, 23d Sept. 1843.

To Messrs. THOMAS ASHBY, WILLIAM WASHINGTON, R. W. ROPER,
Committee on Machinery, as connected with preparing Produce
for Market.

GENTLEMEN,—I am induced to make the inquiry, whether the Cotton planter in your State, has in use any machine through which he passes his crop, previous to ginning.

As I have constructed and applied to use, a machine (for which I am patentee) which frees *unginned* cotton from leaf, dust and trash—improving the appearance of the staple from one to two cents, and in many instances *three* cents per pound, according to the room for improvement. There is nothing in its operation by which the staple is injured, or twisted, for each seed with its fibre is thrown out distinctly, and not only so, but I am inclined to believe, that cotton subjected to its operation, is less liable to "*nap*" in ginning; for although that injury frequently arises from the gin, yet more frequently from the unprepared condition of the cotton.

This machine occupies but a very small space, and requires no extra motive power, being simply connected by a rope or band with the gin wheel; it cleans more in a day than can be ginned in the same period of time. I shall be pleased to hear from you on this subject, and remain,

Very respectfully, your obedient servant,
ROBT. M. LIVINGSTON.

REPLY.

Charleston, Oct. 16th, 1843.

DEAR SIR,—Your letter of the 23d September, inquiring "whether the Cotton planter in this State, has in use any machine,"

through which he passes his crop, previous to ginning," has been referred to the Committee "on Cotton—its different species, and all matters and facts relating to it."

We have now in use, and have had for many years, a machine known as "Birnie's Whipper," which performs very satisfactorily the operation of freeing unginned cotton from "leaf, dust and trash." Ginned cotton is also passed through this machine by a few of our Sea-Island planters, for the purpose of separating the "waste cotton;" but I think only after such an alteration or improvement of the machine, as will subject the ginned cotton to fewer revolution than the unginned before it is thrown out. If you will send a model or drawing of your invention, the Agricultural Society will endeavor to bring it to the notice of Planters, by giving it all the publicity in their power.

While on this subject, I would observe, that the great want of the *Sea-Island* planter is an efficient, cheap, simply constructed Roller gin—one that will supersede the common foot gin now in general use. Such a gin I think would be a fortune to the inventor.

Very respectfully, your obedient servant,

PAUL C. GRIMBALL

Chairman of Committee, on Cotton, &c.

To ROBERT M. LIVINGSTON, Mobile, Ala.

LICE ON ANIMALS.

There is not an animal that does not, under certain circumstances, nourish in its hair, wool, feathers, or its skin, some kind of louse; and sometimes more than one kind of these parasites lodge and prey on the same animal. In ordinary cases, they do not produce much mischief, but when they increase so much as to produce the disease called mange (*Pityriasis*), they become truly formidable.

The cause of animals being troubled with lice, may usually be traced to a want of cleanliness. When the dust and sweat accumulated on the hair and in contact with the skin of the ox or horse, are allowed to remain undisturbed by the comb or brush; when the stables are kept filthy, unventilated, and unwholesome; when animals, reduced in autumn by want of pasture, or by living in unhealthy ones, are suffered to take their chance for the winter without extra care or attention; or when a beast loaded with pediculi is

turned into the yards or the stables of those exempt from these parasites, it may be expected that they will multiply and infest animals. When we see horses rubbing their tails, biting their manes, and showing other signs of uneasiness and irritation; when cattle are observed to be rubbing their heads against posts or fences, and the hair coming off from the head and neck; or when sheep tear out tufts of wool with their teeth, and bite these places till blood appears, we may expect that lice are present. On most animals, these parasites have some favorite place of resort; on horses, the mane and tail; on horned cattle, around the nose, base of the horns, and the neck; on sheep, they run over every part; and on swine, they do not seem to be confined to any particular location.

Pure air, room for exercise, plenty of food, and above all, cleanliness, are the first things to be attended to in the cure of this evil. Currying, brushing, and washing should be resorted to, as, except in bad cases, this treatment will be usually sufficient to free the animal from these insects, without recourse to other remedies. Where these fail, it will be necessary to have recourse to such external or internal applications as shall operate directly on the vermin.

One of the most common remedies is the mercurial ointment, commonly called *unguentum*; but this, though effectual, cannot be used without some danger, as numerous instances have occurred in which valuable animals have been destroyed by its too free use. Care should be taken to prevent the animal from biting itself where the ointment is applied, until it has had time to take effect. A decoction of tobacco leaves, in a strong lye, forms a very good wash; but this, too, owing to the narcotic poison of the tobacco, has caused death. Various vegetable remedies have been resorted to, among which are the seeds of the larkspur, and the leaves of the *ledum palustre*, or marsh, or Labrador tea. The roots of the black hellebore, or a decoction made from them, have been used with success; and it is said that the water in which the skins or parings of potatoes have been boiled, will effectually destroy lice by a few washings. The internal use of sulphur is an excellent remedy, and if given to animals occasionally, is one of the best preventatives.

It is more difficult to apply remedies for lice to sheep than to any other animals. The English shepherds make use of a salve compounded of white arsenic and corrosive sublimate, carefully parting the wool, and applying the ointment directly to the skin, and rubbing it down with the finger. Tessier recommends tobacco smoke as preferable to this ointment, being attended with no danger in its use. The sheep is held in such a manner that the smoke is forced from a bellows among the wool to the skin in all directions. After this fumigation, the sheep must be placed in the open air, that the vapor may pass off without being inhaled by them.

Perhaps the best remedy for lice in animals, where they have not become so numerous as to produce the disease *Pityriasis*, is to

rub any oil, such as whale oil or melted lard, on such places as they most frequent, or on parts of the animal where they will be most likely to come in contact with it. All the pediculi breathe through what are termed spiracles or openings in their bodies, and the least particle of oil spread over their bodies, by causing suffocation, at once effects their destruction. This is also a perfectly harmless remedy. But prevention, in this case, is better than cure; and neatness, cleanliness, and good keeping, by insuring comfort and health, leaves no opportunity for the attacks of vermin.

[*Farmers' Encyclop.*

HORSE BOTS, COW BOTS, AND SHEEP BOTS.

There is a genus of flies known by the common name of Bot flies, (*Oestrus*,) which are very troublesome to horses, sheep, &c. Many suppose that there is but one kind of bot fly, and that confined to the horse: but the fly which deposits its eggs in the nostril of the sheep, is of the same genus. We have also seen a species of bot in the stomach of a cow which we once opened, that had died of what is called the "blind staggers," and have specimens of them preserved. These are smaller and smoother than the larvæ of the bot which we find in horses. We have never seen any of them in a perfect state, and do not know how they get into the stomach of the cow. One would suppose that it would be difficult for them to find a lodgement there, as the animal throws up its food to be rechewed, or ruminated, as some call it. They are not often found in the cow, we presume. Every one knows that the horse-fly deposits its egg on the horse, but every one does not know that if he should take some of those eggs at a proper time and put them into his hand, moisten them with warm spittle and then rub them gently with the other hand, that a small worm or grub would be hatched. This we have often done. We infer from this that the manner in which this species get into the stomach of the horse, is this. The horse bites or nibbles the spot where the eggs are attached, and thus some of the eggs are taken into the mouth, and are there hatched in a few minutes by the warmth and moisture of the mouth, and they either take up their line of march down to the stomach, or are swallowed with other food. When they arrive at their head quarters, instinct teaches them so attach themselves to a suitable spot, where they remain, pumping food and increasing in size until they are ready for their transformation into a fly. When they let go they are thrown out in the natural way, and in a few days spring up a winged insect and go forth to enjoy their new state of existence, and to employ themselves in tormenting horses.

The sheep fly (*Oestrus ovis*,) is a smaller and somewhat differently formed insect, and is probably the swiftest on the wing of any insect whatever. The way he will dart into a sheep's nostril is

astonishing, not only to the one who looks on, but to the poor sheep herself, who becomes almost frantic at the entrance of such an intruder, buzzing and "kicking up a row" in the very inner regions of her "head and horns." Some farmers think that a few of these insects in the animal are a benefit. We must confess we do not know of *what* use they can be, and, although we are ignorant of all the laws and economy of nature as it regards the animal kingdom, we should nevertheless consider that the *fewer* such tenants in the stomach of a horse or cow, or head of a sheep, the better it would be. One thing is certain; they are not unfrequently so abundant as to kill the animal in which they lodge, and we deem it a duty for every farmer to guard against them in every possible way. It is a good thing to oil the legs and other parts of horses, both before and after the bot-nits are laid on. It will prevent the fly, in a great measure, from depositing them, and if they have been deposited, covering them with oil will effectually prevent their hatching. A furrow or two should be ploughed in a sheep pasture, for the purpose of enabling the sheep to guard against the fly which troubles them. In the heat of the day when the fly is abroad, you will find that the sheep repair to these furrows, or to some spot where the earth is sandy and loose, and plunge there noses into the sand, by way of shutting the door against the enemy. Tar applied to the nose is thought to be beneficial as a preventive.

[*Maine Farmer.*]

CENTRE-DRAUGHT PLOUGH.

MR. EDITOR.—Prouty's Centre-draught plough is so greatly superior to any other, in every point of view which makes a plough valuable, *but one*, that it is desirable it should get into more general use; but the defect to which I refer, is fatal to it:—it is a *right-handed plough*. In this, among the best agricultural districts in the State of Pennsylvania, there is scarcely such a thing to be found as a right-handed plough; man, boy, and horse, are wholly unaccustomed to them; and with deference to the opinions of others, I think it desirable that they should keep so. In the use of the left-handed plough, the lead-horse walks in the furrow; hence, with horses at all accustomed to work, there is no driving to be done—the path of the leader is so distinctly marked, that he never deviates from it; but, with the right-handed plough, the lead-horse walks upon the sod or unploughed ground, affording him an opportunity to stray to the right or left, as his carelessness, the inequality of the ground, or any other cause may induce. Any ploughman, good or bad, and especially the latter, will always make better work with a left, than a right-handed plough. I am convinced that with the Centre-draught plough we can break up a clover sod with as much ease to two horses, as three can do it with the best plough

of any other kind we have; and that hundreds of them could be sold in this county, if the defect which I speak of were remedied. And the same alteration should be made in the Subsoil plough.

Yours, &c.

F. W.

Carlisle, Pa., Sept. 8th. 1843.

[*Farmers' Cabinet.*]

AGRICULTURAL SOCIETY OF SOUTH-CAROLINA.

PROCEEDINGS AT THE CATTLE-SHOW AND FAIR.

The first Cattle Show and Fair, under the supervision of the Agricultural Society of South-Carolina, took place on Tuesday 24th October, at the Cattle Farm at the Forks of the Road, near Charleston. The ground selected for the exhibition was arranged in lots, sheds, stalls and pens. Various kinds of stock were exhibited.— Much interest was excited. In the course of the morning there was a very numerous attendance from the city of the Cognoscenti in such matters. The success of this first attempt on the part of the Agricultural Society far exceeded public anticipation, and augurs well for the ultimate good that will result from similar efforts in future.

The Society offered the following premiums:—

- For the best thorough bred Bull, a silver medal.
- For the second best bred Bull, a certificate of merit.
- For the best cross or country bred, 2 years old and upwards, medal.
- For the best Bull Calf, 1 to 2 years old, silver medal.
- For the best Bull Calf, under 1 year, silver medal.
- For the best thorough bred Cow, silver medal.
- For the next best Cow, certificate.
- For the best cross or country bred, 2 years old and upwards, medal.
- For the best Heifer, 1 to 2 years old, medal.
- For the best Heifer Calf, under 1 year, certificate.

SHEEP.

- For the best Southdown Ram, silver medal.
- For the next best Southdown ram, certificate.
- For the best Bakewell Ram, medal,
- For the best Broad Tail, medal.
- For the best Bakewell Ewe, medal.
- For the best Southdown Ewe, medal.
- For the best Broad Tail Ewe, medal.

SWINE.

- For the best Boar, silver medal.
- For the next best Boar, certificate.
- For the best Bon Pig, 4 to 8 months, medal.
- For the best breeding Sow, medal.
- For the next best Sow, certificate.
- For the best Sow Pig, 4 to 8 months, medal.
- For the next best Pig, certificate.

HORSES.

For the best thorough bred Stallion, for general purposes, silver medal.

For the next best Stallion, certificate.

For the best brood Mare, medal.

For the best 2 or 3 year old filly, half bred, medal.

Each applicant must be the owner of the animal exhibited for premium, and such animal must be considered worthy of a premium by the Committee.

The following animals were exhibited, and received the premiums awarded by the Committee.

BULLS.

Mr. Somers Harleston, exhibited a Durham bull, 18 months old.

Mr. Dunlap's large red bull, by Robertson's imported bull, and a Northern cow, half-long horned Durham. He was raised in a paved yard in King-street, on dry food, and now stands to cows at \$5. He has proved himself a fine calf getter, weighs about 1400 lbs., although when in higher flesh than at present he has weighed much beyond this.

Rover, imported by Mr. G. C. Geddes, red and white, no horn; calved 16th May, 1839, dam, Diana—a half bred Durham cow owned by C. J. Wolbert, Esq. of Philadelphia—sire, Mr. Barney's Defiance, a thorough bred Durham. The dam of Rover was celebrated for the richness of her milk, and it was from the milk of this cow that her owner obtained the premium for butter—the milk of his cow Diana producing more butter, than that of any cow, that could be brought in competition with her in Philadelphia.

To each of the above the Committee awarded a Medal.

Bull Sampson, brindle, bred by Mr. G. C. Geddes, got by Burley by imported Burley; purchased of Col. Powel, of Philadelphia by the Agricultural Society of South-Carolina, out of Louisa by Frank, a half Durham half Chinese Bull, sent as a present by Col. Powel to the Agricultural Society of South-Carolina—dam of Louisa an imported cow.

COWS.

Mr. Charles B. Moses' Devon milch cow *Hope*, 7 years old, of a rich red cherry color, *received the first premium* for milch cows; gives from 18 to 22 quarts of milk—was put up for sale, but was not sold.

Col. Ashe exhibited a roan cow, of the Durham breed.

A Medal and Certificate to the above.

A cow of the Ayrshire breed, with a calf crossed by the Durham, the property of Mr. Legare, were exhibited. These were much

admired, and well calculated for our climate, thriving well upon the short grass, and usually good milchers. *Awarded a Medal.*

Clara, calved 16th October, 1839—dam a Scotch cilo cow, got by a fine bred Durham bull in Philadelphia. She has been raised on our common pastures, and has proved very hardy, and a good milcher; she was imported from Philadelphia with her mother in November, 1839, by Mr. G. C. Geddes, and has been raised at his plantation, Geddes' Hall, St. Andrew's Parish.

Mr. Jacob Martin, for the best half bred cow, *received a medal.*

CALVES.

Mr. John Hilson's no horn calf, 7 months old, by a Tennessee bull, and out of an English cow, formerly the property of Col. Hampton.

Dolphin, white and red heifer, calved 7th April, 1842 on the passage out from Philadelphia. The dam of Dolphin is Betsy, a full bred Durham cow, that gave 22 quarts of milk; sire, a full bred Durham, owned by Capt. Baker of Philadelphia.

To each of the above a *Medal.*

Independence, red and white bull calf; calved November 20th, 1842, bred by Mr. Gilbert C. Geddes, Seabrook Place, John's Island; got by Hector, imported by Mr. Gilbert C. Geddes, in 1839—dam, Lady Olive Branch from England, imported by Mr. Craige, sire, Hector, an imported bull. The dam of Independence is Flora, got by Burley, by imported Burley.

Bull calf, *Southern Star*, calved July 15th 1843—got by Mr. Dunlap's bull Southern Star, by Mr. Robinson's English bull, out of Mr. Dunlap's imported cow.

Roan heifer, *Victoria*, calved March 12th, 1843—got by Menthoven, a thorough bred Durham bull, imported from Baltimore, out of an English cow, a fine milker.

HORSES.

Rosetta, a three year old filly, bred by Mr. G. C. Geddes, dam Venus—got by Kosciusko out of Sea-serpent mare,—sire Eagle, got by Buzzard, &c.

Bertrand, filly, out of Lady Bertrand—got by Major, a full bred Canadian stallion. Property of Mr. G. C. Geddes.

Col. Ashe exhibited a grey mare, by old Bertrand out of Juliet, by Muckle John, out of an Andrew mare.

A chesnut mare, and a chesnut filly, by Prince; the property of Mr. Joseph Bee, and a brown mare, the property of Mr. J. L. Rose, were shown.

Mr. James Legare, exhibited a black mare, 4 year old, by Bertrand out of Betsey Eccles. She is now in foal by Monarch.

SHEEP.

A pair of pure Southdown sheep, from Mr. Isaac Newton's farm in Chester county, Pennsylvania. To these was awarded a *Medal*. The ram also took the premium in '39, at the agricultural exhibition of the State Agricultural Society in Pennsylvania. A lamb of the broad tail breed, raised by Mr. Geddes, from a ram imported by himself from Philadelphia, was also shown.

A Bakewell ram, the property of Samuel Magwood, also obtained a *medal*.

SWINE.

A young sow, 7 months old, of the Chester county breed of Pennsylvania, raised by Mr. G. C. Geddes, and a large hog of the same breed.

Mr. James Legare, two pigs, 5 and 7 months old; the former, remarkably muscular and finely formed. *A Medal*

Col. Ashe's two hogs, a sow and pig, of the genuine Berkshire breed.

Mr. J. D. Joye exhibited a boar of the Berkshire breed.

Dr. Davis exhibited a boar, the Irish Grazier and Berkshire mixt. He was brought to Carolina by Capt. Hobbs of the brig Eleanor. He is for sale, valued at \$30.

To each of the above was awarded a Medal or Certificate.

Mr. Barnwell showed the bull "Halifax," of the Durham breed, 5 years old, red and white. Several sows, with their pigs, full bred Berkshire and Tuscarora—imported or raised by himself; but did not exhibit them for a premium, being on the Committee.

Mr. Moses showed a full blooded Berkshire sow, with her pigs.

Dr. Davis exhibited a Berkshire boar.

AGRICULTURAL IMPLEMENTS.

Mr. Landreth exhibited two Straw-cutters and three Corn-shellers, of a different construction—one of these Straw-cutters, Botts & Beaufort's, took the premium in Philadelphia and N. York—As also did one of the double Corn-shellers. And a one Hand-mill, and

a mill to be worked by horse-power, Platt's patent, was shown; for sale by Starr & Williams, corner of King and Liberty-streets.

Prouty's subsoil plough, a very neat article, exhibited by Mr. O'Hear.

These Agricultural meetings are becoming more frequent in our State. We hail them with pleasure as indications of increasing interest in the cause. We hope in our next to give an account of the meeting at Columbia of the *State Agricultural Society's Show and Fair*; where many competitors are expected to offer for the Premiums, which will be found on our cover.

COTTON AND CORN.

A beautiful specimen of long staple cotton, from the Ashburton seed—the quality that is most highly prized, and commands the highest price in the market of all the qualities that are raised in our Sea-Island Cotton regions, may be seen at our office. It was raised at "Geddes' Hall," the plantation of Capt. G. C. Geddes, of St. Andrews.

We, also, had the gratification of being present on Friday last, at the breaking in and measuring of an acre of corn at the same place. It was cultivated as an experiment as follows, on land extremely poor, and which would not in the ordinary culture, produce more than seven bushels per acre.

The acre alluded to, was laid out in beds five feet apart—the seed planted in double rows, 20 inches apart diagonally—no manure was used before the seed was in the ground. When the corn was 5 or 6 inches out of the ground, it was manured with *live cotton seed*. As soon as the cotton-seed began to sprout, it was hoed and turned under—when the corn was a foot high, it was again fed on the surface with well rotted manure, from the lower layer of the cowpen well saturated with ammonia. The basis of the manure used, was salt marsh and sedge. The single acre, treated as above, produced *sixty-eight bushels*.

(*The Rambler.*)

TREES.

By felling the trees that cover the tops and sides of mountains. (says Humbolt,) men in every clime prepare at once two calamities for future generations—want of fuel and scarcity of water.

THE FAIR OF THE N. Y. STATE AGRICULTURAL SOCIETY.

The late Fair of the New-York State Agricultural Society at Rochester, was probably the grandest and most imposing exhibition of the kind ever held in this country. It is estimated that 30,000 persons, including a great portion of the farmers of Western New-York, were present. Mr. Van Buren, Mr. Webster, Mr. Granger, Gov. Bouck, Gov. Seward, James S. Wadsworth, were among the distinguished individuals who took part in the proceedings.

Almost every thing that nature can produce or art desire, seems to be included in the catalogue of articles exhibited. From all quarters of her wide domain, the Empire State appears to have contributed of her treasures. One writer estimates that they were at least 4,000 wheeled carriages in full operation, and 10,000 horses. And in the show ground, some 60 Durham bulls, 20 stud-horses, several hundred sheep and hogs, a thousand horses of all kinds, &c. &c.

Upwards of 1100 persons sat down to the agricultural dinner of the first day. Messrs. Van Buren, Granger, Wadsworth, (who acted as President,) and many others spoke eloquently on the occasion. The Mechanics' Fair, the Orphans' Fair, and the Agricultural Fair were all open at the same time.

The ploughing match took place in the forenoon of the second day. Eighteen teams started for the purse, in presence of thousands of spectators. In the afternoon, Dr. Beekman, of Kinderhook, delivered the annual address to a company of 10 or 15,000 in the Exhibition field upon the banks of the Genesee river, Mr. Wadsworth presiding. Upon the stage were Mr. Van Buren, Gov. Bouck, ex-Gov. Seward, Christopher Morgan, and other eminent gentleman. In the evening Mr. Webster made a great speech.

The Rochester Democrat says: "We are informed by one of the committee, that the amount received from admission fees at the show ground, was about \$14,000; and from members and subscriptions \$10,000, making in all say \$24,000. The amount of premiums for the year is \$2,000, and the contingent expenses are nearly \$1,000. The Society receives \$700 from the State.

[*N. E. Farmer.*

PRINTERS' AND PUBLISHERS OUTSTANDING ACCOUNTS.

A thousand such accounts at ten dollars each, amount to ten thousand dollars—a handsome sum these times were it all collected. The same number at five dollars each, amount to five thousand dollars. Should not then every subscriber to a paper—in order to do as he would be done by, and thus fulfil the golden rule—cancel at once his printer's account, be it more or less—that he may not be one of the thousand, or the five hundred, or even of the fifty, who may think that because the debt is small it is of but little consequence to his printer. This is no dun—but the statement of a question in equity, for the solution of none else but those whom it may concern.

[*Selected.*

THE SPIDER.

This insect is a friend to agriculture, although it is considered to be disgusting and poisonous, and many there are that will start back and scream at the sight of a spider, as if it were a venomous reptile. This is because tradition and superstition have got possession of our senses. I have been bit by spiders and received no more injury than from a flea; yet there may be some spiders whose bite is poisonous. The spider has eight legs and eight eyes; it sheds its skin several times in the course of its life; it sometimes survives the winter in a torpid state; it is, like other beast of prey, capable of enduring hunger a long time; its food consists wholly of flies and insects, which otherwise would devour our crops. Look at the multitude of webs in the morning after the fog has left the air, and you will see your field nearly covered, and all of these little nets are set to catch insects. How many thousands are daily destroyed. Yet prejudice has got such hold of our minds that we frequently step aside to crush them and destroy their nests.— Whoever is guilty of doing so, is not acquainted with the history of the spider, or they act against their own best interest. [Selected.

ASTONISHING EFFECT OF GUANO.

At the recent exhibition of the Massachusetts Horticultural Society, in Boston, the Transcript says, that a promising object of attention, was the produce of two seed of *sweet corn*, planted by J. E. Teschemacher, in the Public Garden, Charles street, on the 12th of May last, in *poor sandy soil!* One without any manure; product, one stalk, *one ear*, weight $1\frac{1}{2}$ lb. The other, manured with Guano; produced *eight good ears* and four or five useless ones; weight *eight* pounds. Only two spoonfulls of the Guano were used on the hill. These specimens were taken from a small piece planted with corn at the same time. Every other hill manured with Guano, and the effect is the same throughout the whole.

[Amer. Farmer.

FATTENING OF HOGS.

Putting up hogs for fattening, should not be delayed until cold weather, as they gain fat much faster under the influence of heat than cold. When confined in their pens, they should have allowances of charcoal, rotten wood, ashes, and salt, given them every few days; be provided with fresh water at least twice a day, and supplied liberally with such materials, as mould and leaves from the woods, marsh mud, the scrapings of the road and yards, corn stalks, refuse straw, and offal of every kind, to be converted by them into manure. Besides their regular feeds of corn, it would be well, every few days, to give them vegetables of some kind, as they tend to keep their system cool and promote the regular evacuation of their bowels.

[Amer. Farmer.

MONTHLY CALENDAR
OF
HORTICULTURE AND FLORICULTURE.
FOR NOVEMBER, 1843.

VEGETABLE GARDEN.

It may be remarked in general, that few garden seeds can be sown this month with any great prospect of success. Most plants that are calculated to survive the winter frosts, ought to have been sown in the preceding months, a few, however, will be designated.

Hardy Beans.—The Mazagan and Winter Beans may be planted in this month; should these survive the winter frosts, they will be fit for use early in the spring; they are excellent and early bearers, and although the name of Horse Bean operates against them, leaving an impression that they are coarse and not very palatable, still as an early bean, coming at a season when few vegetables can be procured, it is worthy of cultivation.

The most favorable situation for this species of Bean, is in a warm south border. Let them be planted in rows two feet apart, and four or five inches from each other in the row, and about an inch deep. Should they come up irregularly, they should be transplanted.

Green Peas.—You may venture about the middle of this month to sow Peas for an early crop. Prepare a bed in the warmest and most sheltered part of your garden. Sow the seeds in drills about four feet distant from each other, about three or four inches apart in the drill. You may plant Cabbage or Lettuce plants between the rows.

Cabbages.—If you have neglected planting early Cabbages during the last month, you may still venture to plant Savoy or Early York Cabbages in this. For the manner of planting them, see our directions in former months.

Lettuce.—Weed, hoe and thin your Lettuce plants; a few of the larger ones will now be fit for use.

Radishes.—In the early part of this month you may sow the short top Radish; if the frost is not too severe, they will be fit for use in February.

Onions.—Let the Onions that were planted in October be frequently hoed, be careful, however, only to loosen the earth, and not to draw it much around the plants.

Small Salading.—Sow Cresses and small Salading for an early crop.

Celery.—In a dry day, earth up your Celery to whiten. Let the earth be raised within 6 inches of the top of the plant, and be careful that no clods of earth fall into the centre.

Artichokes.—If your Artichokes did not receive their winter dressing last month, they should not be neglected any longer.

Asparagus.—If your Asparagus beds did not receive their fall dressing last month, let them be attended to in this. Remove the earth down to the roots, cover them with 3 or 4 inches of rotted manure.

Ground Artichokes.—(*Helianthus tuberosus*).—This is a vegetable too much neglected in our country—it answers well as a pickle, and may be boiled and brought to table mashed with butter like the squash. Let the Ground Artichokes be dug for use, leaving the smaller in the beds as seed for next spring.

FRUIT GARDEN.

You may begin this month to prune your Pear, Peach, Nectarine and Apricot trees, although the two next months will answer equally well.

Raspberries.—This is a fruit which has been much neglected in our country. The black variety especially, succeeds well with but little attention, and we have occasionally seen the yellow and the red cultivated with success.

Fruit Trees.—This and the following month is favorable to the transplanting of all kind of Fruit Trees, especially the Pear, Peach, Nectarine, and Apricot. We say nothing of the Apple, as it has seldom succeeded along our sea-coast.

PHEMIURES OF THE STATE AGRICULTURAL SOCIETY.

IN NOVEMBER, 1843.

| | |
|--|---------|
| For the best Stallion, for Harness purposes, Cup, | \$15 00 |
| For the best Mare, for Harness purposes, Cup, | 12 00 |
| For the best Colt, male or female, under 3 years old, for Harness purposes, Cup, | 10 00 |
| For the best Saddle, for Saddle purposes, Cup, | 15 00 |
| For the best Mare, for Saddle purposes, Cup, | 12 00 |
| For the best Colt, male or female, under 3 years old, for Saddle purposes, Cup, | 10 00 |
| For the best Mare, over 3 years old, Cup, | 10 00 |
| For the best Mare, under 3 years old, Cup, | 10 00 |
| For the best Bull, of any breed, over 3 years old, Cup, | 15 00 |
| For the best Bull, of any breed, under 3 years old, Cup, | 12 00 |
| For the best Milk Cow, Cup, | 15 00 |
| For the 2d best Milk Cow, Cup, | 12 00 |
| For the best Heifer, under 3 years old, Cup, | 12 00 |
| For the 2d best Heifer, under 3 years old, Cup, | 12 00 |
| For the best Lamb, Cup, | 10 00 |
| For the best Ewe, Cup, | 10 00 |
| For the best pair of Lambs, Cup, | 10 00 |
| For the best Duck, Cup, | 10 00 |
| For the best Goose, Cup, | 10 00 |
| For the best pair of Pigeons, Cup, | 10 00 |

J. B. DAVID, Secretary, State Agricultural Society.

Clairmont Nursery.

NEAR BALTIMORE.

The subscribers respectfully inform their friends and the public, that the time for transplanting trees has nearly arrived, and it would afford them pleasure to show their extensive, thrifty and well grown stock of FRUIT and other TREES and PLANTS. The Ornamental Trees are larger and neater than usual, especially the Balsam or Silver Fir, and other Evergreens, as also the Plum, Cherry, and Apricot Trees. Of Bulbous Roots, and Strawberry Plants, they have nearly all the best now seen. Asparagus Plants, and Raspberry and Pine Plant, &c. &c. For further particulars, we refer persons to our printed and priced catalogues, which will be sent to order gratis. Persons ordering Trees from a distance, may rely on their orders being carefully dug, packed and forwarded agreeably to order, and as much to their interest as possible.

SINCLAIR & CORSE,
Successor of Robert Sinclair, Sen.

The subscriber, as Agent for the above Nursery, will receive and execute orders which may be left at his Repository, No. 81 East-Bay, Charleston.

J. D. LEGARE.

A DAY ON COOPER RIVER.

BY JOHN R. IRVING, M. D.

THE interesting Number of "A Day on Cooper River," with an addition to the Fifth Number, containing Mr. Myrick's poem of "Cultivating Rice," have been published by the subscriber, in pamphlet form.—Price 50csm.

A. E. MILLER, Broad-type.

LIST OF PAYMENTS.

For 1843.

Mr. J. W. Faber.
Dr. F. Y. Porcher.

Mr. W. H. Ravenel, Black Oak.
Genl. A. S. Jones, Georgia.

TO OUR READERS AND CORRESPONDENTS.

We regret to say that we have not been able to obtain as much information on the preparation of Cotton for market, as we desired—but our subscriber in Decatur County Georgia, will perceive by a correspondence in this Number, that the Agricultural Society of South-Carolina have the subject under consideration; and that there is some likelihood of a new machine being brought into use through their instrumentality, if Mr. Livingston of Alabama, will comply with their request.

We are promised a very well written Report on Rice—its growth and preparation for market, &c. &c. which will appear in our next.

We have received a Communication from "A." on the importance of *making and using Manures* on the small farms on Charleston Neck.

 The Subscribers to the Southern Agriculturist are reminded, that the Price of the Journal was reduced this year to all those who paid in advance; those who are still in arrears for this and former years are respectfully solicited to make their payments.

RUFFIN'S CALCAREOUS MANURES.

ELEMENTS OF AGRICULTURAL CHEMISTRY,

In a Course of Lectures for the Board of Agriculture, delivered between 1802 and 1812. By Sir H. Davy.

WESTOVER MANUSCRIPTS,

Containing the history of the Dividing Line between Virginia and North-Carolina. By Wm. Bird of Westover.

THE BANK REFORMER No. 1.—By Edmund Ruffin.

THEORY AND PRACTICE OF DRAINING AND EMBANKING. By John Johnston, Esq.

For sale at A. E. MILLER'S, No. 4 Broad-st.

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Is just published for sale to dealers at \$5 per groce, wholesale; single half groce, and parts of a groce, at the rate of \$6.

At No. 4 Broad-street, Charleston.